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10/027,048	12/20/2001	Rod Walsh	004770.00025	2223
22907	7590	08/11/2006	EXAMINER	
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			REFAI, RAMSEY	
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/027,048

Applicant(s)

WALSH ET AL.

Examiner

Ramsey Refai

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

Responsive Amendment received June 5, 2006. Claims 1 and 5 have been amended. Claims 1-26 remain presented for further examination.

### *Response to Arguments*

1. Applicant's arguments filed June 5, 2006 have been fully considered but they are not persuasive.

- In the remarks, the Applicant argues in substance that:

Argument A: *Lakshman fails to disclose that the rules are fixed length, have an offset with respect to the beginning of the cluster, or discuss the length of the rules.*

In response, the Examiner respectfully disagrees. Although Lakshman does not explicitly use the word *fixed*, Lakshman does teach that filters have rules in which a specific range can be specified (see Figure 3, column 3, lines 35-56, column 2, lines 22-38). Lakshman further teaches in Figures 3 and 5 that filters have different dimension and window intervals. In an example while referring to Figure 5, Lakshman teaches that corresponding filter rules are applied to a packet by applying the filter with the highest priority. The filters are ordered in terms of significance and the first bit that is a 1 will designate the filter that must be applied to the packet (See column 5, lines 6-34 and Figures 5-6). Therefore Lakshman meets the scope of the claimed limitations.

Argument B: *Office Action is equating the bit-mapped vector with a filter.*

In response, the Applicant's interpretation of the Office Action is incorrect. Lakshman teaches that a vector is generated corresponding to each of the parameters; the vector structure indicates one or more potential filters to be applied the packet for each parameter. Therefore,

Art Unit: 2152

the bit-mapped vector is not equated to be the claimed filter. Lakshman explicitly teaches the claimed packet filters. (See abstract and column 2, line 23-50)

Argument C: Lakshman fail to disclose “ wherein a plurality of fixed length filters is configured so that each of the plurality of fixed length filters has an offset value corresponding to one of the discrete segments of the packet”

In response, the Examiner respectfully disagrees. Lakshman teaches that a vector is generated corresponding to each of the parameters; the vector structure indicates one or more potential filters to be applied the packet for each parameter. Lakshman further teaches in Figures 3 and 5 that filters have different dimension and window intervals. In an example while referring to Figure 5, Lakshman teaches that corresponding filter rules are applied to a packet by applying the filter with the highest priority. The filters are ordered in terms of significance and the first bit that is a 1 will designate the filter that must be applied to the packet (See column 5, lines 6-34 and Figures 5-6). Therefore Lakshman meets the scope of the claimed limitations.

#### *Claim Rejections – 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claim 1 now contains newly added limitation “ *wherein each of the selected at least two fixed length filters has an offset value corresponding to a beginning of one of the at least two clusters*” . No support for this claimed limitation has been found in the

Art Unit: 2152

Applicant' s specification. In the remarks section (January 17, 2006), the Applicant previously points to page 7, paragraph 28 of the specification for support, which recites:

FIG. 6 illustrates a method that may be implemented by cluster mapping module 204 to generate a cluster map, in accordance with an embodiment of the invention. The filter module filters clusters of data found in a packet of data. First, in step 602, the identification of at least two clusters of discrete sections of data is received. Client system 202 may transmit the identification of clusters to cluster mapping module 204. Next, in step 604, individual fixed length filters are selected. The selection may be based on factors such as the sizes and locations of the clusters. In step 606, the offset values are selected. Offset values have been described above and may be selected so that filter resources are optimized. *The offset values may be selected to correspond to the beginning of the clusters of discrete sections of data.* For example, if a cluster of data consists of sections 108 and 110 of packet 100 (shown) in FIG. 1, an offset value of 24 bits may be selected to prevent filtering unneeded bits.

The closest support for the newly added limitation appears to be the highlighted portion above. However, this is insufficient support for the newly added limitation “ *wherein each of the at least two fixed length filters has an offset value corresponding to one of the at least two clusters* ”, which differs from the above paragraph which teaches that the offset values may be selected to correspond to “ *the beginning of the clusters of discrete sections of data* ”. This section teaches the offset value corresponds to the beginning of sections of data in the cluster not the beginning of the cluster. See example in the above citation from the Applicant' s specification.

4. Claims 2-11 depend on the above rejected claim 1, therefore are rejected under the same rationale.

#### *Claim Rejections – 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-9, 11-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Lakshman et al. U.S. Patent No. 5,951,651; hereinafter Lakshman).

Art Unit: 2152

7. As per claims 1, 7-8, 12, and 18, Lakshman discloses a device for filtering data, wherein the data is formatted in a packet having discrete segments, the device comprising:

a mapping module (router) that contains control logic for performing steps comprising:

(a) receiving an identification of at least two clusters of the discrete segments of data (packets contain segments of data see fig. 1) (col. 4, lines 48-54); and

(b) selecting at least two fixed length filters from of a plurality of fixed length filters to filter the at least two clusters (col. 4, lines 54-55 see also col. 5, lines 7-16) wherein each of the selected at least two fixed length filters has an offset value corresponding to a beginning of one of the at least two clusters (column 4, lines 28-47, column 3, lines 30-56, column 5, lines 25-28).

8. As per claim 2, Lakshman discloses that the plurality of fixed length filters have a common length (col. 4, lines 30-33).

9. As per claim. 3, Lakshman discloses that each of the plurality of fixed length filters is 2 bytes (fig. 5, 75b).

10. As per claim 4, Lakshman discloses that the plurality of fixed length filters is configured so that each of the plurality of fixed length filters has an offset value corresponding to one of the discrete segments of the packet (col. 4, lines 41-44).

11. As per claim 5, Lakshman discloses that at least one of the plurality of fixed length filters has the offset value of 0 (col. 4, lines 33-34).

12. As per claims 6 and 17, Lakshman discloses that a first one of the at least two clusters of data is formatted in accordance with a first protocol and a second one of the at least two clusters of data is formatted in accordance with a second protocol different than the first protocol (col. 2, lines 23-34).

Art Unit: 2152

13. As per claim 9, Lakshman discloses receiving an identification of a protocol of the data and a value (col. 6, lines 34-40).

14. As per claim 11, Lakshman discloses that the mapping module contains further control logic for performing the steps of mapping the identification of the protocol of the data and the value to the at least two clusters of the discrete segments of data (col. 6, lines 42-51) .

15. As per claims 13-14 and 19-20, Lakshman discloses the steps of generating a filter mask that identifies segments of the at least two of a plurality of fixed length filters (col. 4, lines 55-66) and providing the filter values (col. 4, lines 66-67 through col. 5, lines 1-3).

16. As per claims 15 and 21, Lakshman discloses the method further comprising the step of: generating at least one rule for combining data filtered by at least two of a plurality of fixed length filters (col. 7, lines 1-17).

17. As per claims 16 and 22, Lakshman discloses the method comprising the step of: selecting offset values for the at least two of the plurality of fixed length filters (col. 5, lines 25-28).

18. As per claim 23, this claim contains similar limitations as claims 1 and 12 above, therefore are rejected under the same rationale.

19. As per claim 24, Lakshman teach the cluster map includes the offset of the first and second fixed length filters (column 4, lines 28-47, column 3, lines 30-56).

20. As per claims 25 and 26, Lakshman teach none or all of the plurality of fixed filters overlap (column 4, lines 1-3).

*Claim Rejections – 35 USC § 103*

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2152

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman et al.

U.S. Patent No. 5,951,651; hereinafter Lakshman).

As per claim 10, Lakshman teaches that the value comprises an IP address (column 3, line 24-30) but fail to teach the use of DVB-T protocol.

However, it would have been obvious to one of the ordinary skill in the art at the time of the Applicants' invention to use DVB-T protocol in Lakshman's method because doing so would allow for the efficient routing of quality audio and video data by filtering Digital Video Broadcasting data using a plurality of filters.

#### *Conclusion*

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



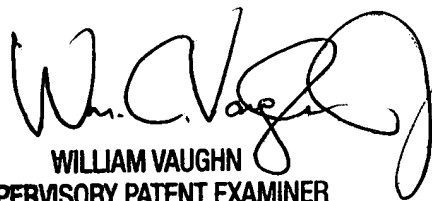
Art Unit: 2152

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramsey Refai  
Examiner  
Art Unit 2152  
July 28, 2006



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